### OIB - Other: NOAA P-3 05/19/16 Science Report

Aircraft:

Other: NOAA P-3

Date:

Thursday, May 19, 2016

Mission: OIB

**Mission Location:** 

Kangerlussuaq, Greenland

**Mission Summary:** 

Mission: East Glaciers 01 augmented (priority: low)

This mission maps the centerlines of several glaciers on the central east coast of Greenland. This particular draft captures the centerlines of six glaciers: DeGeer, Jaette, Nordenskiold, Wahlenberg, Violin and Nord Glaciers. The first two were originally flown during the 2009 OIB campaign, and all were flown in 2012. The Violin centerline passes within 1 km of two PROMICE sites. We transit to the area along a line connecting the DYE2 and GRIP drill sites, and return along a historical ATM line dating to 1993. We augmented the flight plan today with a single pass over the IceSat 0412 site near Summit Station, from the baseline-priority "K-EGIG-Summit" mission.

We woke this morning to 1500' ceilings at Kangerlussuaq and very extensive cloudiness across most of the southern half of Greenland. The clouds were associated with a strong low pressure system blowing inland from Disko Bay during the day. This weather prevented us from flying either of our remaining baseline-priority missions today (K-EGIG-Summit and Jakobshavn-Eqip-Store), and in fact prevented us from flying anywhere except in the vicinity of the low-priority East Glaciers 01 mission.

However we saw an opportunity to include a flyover of a portion of the K-EGIG-Summit mission, namely the Summit 412 track. So we arranged with the Summit Science technicians at Summit Station to perform a coincident GPS ground survey of the 412 track, at around the time we expected to be overhead. The weather at Summit remained clear long enough for us to successfully conduct the overflight. We thank the Summit Station staff, and particularly the science techs Marci and Jason, for their enthusiastic cooperation with our flight today.

We lost most of the western portions of the flight to clouds, but enjoyed completely clear skies east of the divide and over our glacier targets.

All instruments performed normally today, and neither ATM nor DMS experienced unusual fouling of their respective windows from hydraulic fluid.

Overall, we estimate successful data collection across 80% of the flight.

We conducted a ramp pass over Kangerlussuaq at 2500' AGL.

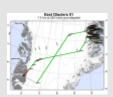
Data volumes: ATM: 23 Gb FLIR: 3.3 Gb DMS: 96 Gb

Ku-Band Radar: 191 Gb MCoRDS: 1.7 Tb Snow Radar: 191 Gb BESST: xx Gb

total data collection time: 5.1 hrs

#### Images:

# Map of today's flight



#### Read more

# Weather satellite image from this morning



#### Read more

# **Violin Glacier DMS image**



#### Read more

# Soxmap screenshot



### Read more

Submitted by:

John Sonntag on 05/19/16

Related Flight Report:

### Other: NOAA P-3 05/19/16

Flight Number:

Land Ice East Glaciers 01

**Payload Configuration:** 

OIB Spring 2016

Nav Data Collected:

No

**Total Flight Time:** 

7.1 hours

Submitted by:

John Woods on 05/19/16

### Flight Segments:

From:	BGSF	То:	BGSF			
Start:	05/19/16 10:54 Z	Finish:	05/19/16 17:57 Z			
Flight Time:	7.1 hours					
Log Number:	16M030	PI:	Nathan Kurtz			
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program					
Purpose of Flight:	Science					

### Flight Hour Summary:

	16M030
Flight Hours Approved in SOFRS	200

Total Used		148.7	148.7 51.3				
Total Rema	ining	51.3					
16M030 Flight Reports							
Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining		
03/22/16	ICF1	Check	2	2	198		
03/23/16	ICF2	Check	3.4	5.4	194.6		
04/12/16	ICF3	Check	1.3	6.7	193.3		
04/15/16	Repo 1	Ferry	0.5	7.2	192.8		
04/16/16	Repo 2	Ferry	2.9	10.1	189.9		
04/18/16	Repo 3	Ferry	7.1	17.2	182.8		
04/19/16	Sea Ice Eureka	Science	7.3	24.5	175.5		
04/20/16	Sea Ice Laxon Line	Science	8.7	33.2	166.8		
04/21/16 - 04/22/16	Sea Ice SIZRS Zigzag	Science	8.3	41.5	158.5		
04/30/16	Sea Ice South Basin Transect	Science	8.8	50.3	149.7		
05/03/16	Sea Ice North Pole Transect	Science	7.6	57.9	142.1		
05/04/16	Sea Ice South Canada Basin	Science	7.9	65.8	134.2		
05/09/16	Land Ice Zachariae-79N	Science	7.6	73.4	126.6		
05/10/16	Land Ice Northwest Coastal A	Science	6	79.4	120.6		
05/11/16	Land Ice Umanaq B	Science	7.1	86.5	113.5		
05/12/16	Land Ice Southeast Coastal	Science	7.3	93.8	106.2		
05/13/16	Land Ice Helheim- Kangerdlugssuaq	Science	7.8	101.6	98.4		
05/14/16	Land Ice SW Coastal A	Science	7.8	109.4	90.6		
05/16/16	Land Ice Thomas- Jakobshavn 01	Science	7.9	117.3	82.7		
05/17/16	Land Ice Helheim- Kangerdlugssuaq Gap B	Science	8.1	125.4	74.6		
05/18/16	Land Ice IceSat-2 Central	Science	7.7	133.1	66.9		
05/19/16	Land Ice East Glaciers 01	Science	7.1	140.2	59.8		
05/21/16	Ferry BGSF_KMCF	Ferry	8.5	148.7	51.3		

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

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2017

Page Editor: Erin Justice NASA Official: Bruce A.

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